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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,726	12/04/2003	Pekka Kuure	879A.0016.U1(US)	6915

29683 7590 11/01/2007
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EXAMINER	
SMITH, JOSHUA Y	

ART UNIT	PAPER NUMBER
2619	

MAIL DATE	DELIVERY MODE
11/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

TH

Office Action Summary	Application No.	Applicant(s)	
	10/727,726	KUURE ET AL.	
	Examiner	Art Unit	
	Joshua Smith	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 8, 9, 15, 16, 19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell et al. (Document Number: EP 1 006 695 A1) in view of Cromer (Pub. No.: US 2003/0186703 A1), hereafter referred to as Forssell and Cromer, respectively.

As for Claim 1, Forssell shows in paragraph [0006] and in Fig. 1a, page 14, the network of "a cellular radio system" (substantively the same as "cellular network" in the instant invention).

Forssell teaches in paragraph [0013], lines 38 and 41, that "a Temporary Block Flow (TBF) is created for transferring data packets on a packet data channel" for services that include "voice services" (substantively the same as "a new packet-switched dedicated channel carrying speech samples").

Forssell teaches in paragraph [0015], lines 47-48, "uplink resource allocation" occurs when the "Mobile Station (MS) requests radio resources". Forssell also teaches in paragraph [0026], line 15, "Downlink radio resource allocation". Forssell also teaches in paragraph [0007], from line 58 of page 2 to line 1 of page 3, "packet data transmission between mobile data terminals", implicitly teaching that transmissions between mobile terminals involve an uplink for a transmitting mobile station and a downlink for a receiving mobile station (substantively the same as "communicating through a dedicated channel comprising both an uplink and at least one downlink" in the instant invention).

Forssell shows in paragraph [0006], line 33, and Fig. 1a, page 14, "the core network of a cellular system 10" (substantively the same as "a core network interconnecting them" in instant invention).

Forssell shows in paragraph [0007], lines 51-55, and Fig. 1b, page 14, the "operational environment comprises one or more subnetwork service areas," which are interconnected by a backbone network and where each "subnetwork comprises a number of packet data service nodes", which provide a packet service for mobile data terminals 151 via several base stations 152" (substantively the same as "a server function or server ... controls a flow of data packets" in the instant invention).

Forssell teaches in paragraph [0042], lines 40-41, that "the network is informed at the end of an active period, on whether a passive period follows the active period", and, in paragraph [0044], lines 55-56, "on a downlink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels", showing that a passive period can occur after an active period on an uplink channel and on a downlink channel, and a mobile station of the downlink channel can start transmitting on the channel (substantively the same as "after a last speech packet sample packet is sent uplink, keeping up the dedicated channel ... for a time of such duration that a new uplink can be established, utilizing at least one downlink, from at least one terminal connected to said downlink" in the instant invention).

Forssell does not teach "by sending post-speech packets". However, in the same field of endeavor, Cromer teaches in paragraph [0010], of a "client device" connected "on a wireless local area network (WLAN)", wherein the client device can receive a type of incoming packet called a ""ping" packet for maintaining a connection between the client device and the WLAN", where a "ping" packet originates from the WLAN, different from a data packet, which can originate from another user (substantively the same as "by sending post-speech packets" in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to adopt the bandwidth throttle of Cromer in the real time data network of Forssell since this would allow the network to have low-power maintenance of inactive connections and the ping packets can be used by the network of Forssell to send updates to the mobile device to inform the mobile device if the downlink TBF release indication of the

last RCL data block has become invalid and the channel needs to be persevered before the downlink TBF release procedures are complete.

As for Claim 2, Forssell teaches in paragraph [0042], lines 40-41, "the network is informed at the end of an active period, on whether a passive period follows the active period or if the connection can be released" (substantively the same as "the server determining when the last speech sample packet is sent" in the instant invention).

Forssell teaches in paragraph [0044], lines 53-54, "on an uplink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels", and in lines 56-57, "on a downlink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels" (substantively the same as "determining whether a terminal taking part in the session needs a new uplink" and "establishing said new uplink is established" in the instant invention).

Forssell does not teach "server sending at least one post-speech packet downlink to receiving terminals". However, in the same field of endeavor, Cromer teaches in paragraph [0010], of a "client device" connected "on a wireless local area network (WLAN)", wherein the client device can receive a type of incoming packet called a ""ping" packet for maintaining a connection between the client device and the WLAN", where a "ping" packet originates from the WLAN, different from a data packet, which can originate from another user (substantively the same as "the server sending at

least one post-speech packet downlink to receiving terminals" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the bandwidth throttle of Cromer in the real time data network of Forssell since this would allow the network to have low-power maintenance of inactive connections and the ping packets can be used by the network of Forssell to send updates to the mobile device to inform the mobile device if the downlink TBF release indication of the last RCL data block has become invalid and the channel needs to be persevered before the downlink TBF release procedures are complete.

As for Claims 8 and 9, Forssell shows in paragraph [0006] and in Fig. 1a, page 14, the network of "a cellular radio system" (substantively the same as "cellular network" in the instant invention).

Forssell teaches in paragraph [0013], lines 38 and 41, that "a Temporary Block Flow (TBF) is created for transferring data packets on a packet data channel" for services that include "voice services" (substantively the same as "a last speech sample" in the instant invention).

Forssell shows in paragraph [0007], lines 51-55, and Fig. 1b, page 14, the "operational environment comprises one or more subnetwork service areas," which are interconnected by a backbone network and where each "subnetwork comprises a number of packet data service nodes", which provide a packet service for mobile data terminals 151 via several base stations 152" (substantively the same as "A server in a

cellular network comprising a receiver configured to receive a last speech sample packet in an uplink direction" in the instant invention).

Forssell teaches in paragraph [0042], lines 40-41, that "the network is informed at the end of an active period, on whether a passive period follows the active period", and, in paragraph [0044], lines 55-56, "on a downlink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels", showing that a passive period can occur after an active period on an uplink channel and on a downlink channel, and a mobile station of the downlink channel can start transmitting on the channel (substantively the same as "a server or a processing device configured to prolong the existence of downlinks for a time of such duration that at least one new uplink can be established from a receiving terminal" in the instant invention).

Forssell does not teach "by sending post-speech packets". However, in the same field of endeavor, Cromer teaches in paragraph [0010], of a "client device" connected "on a wireless local area network (WLAN)", wherein the client device can receive a type of incoming packet called a ""ping" packet for maintaining a connection between the client device and the WLAN", where a "ping" packet originates from the WLAN, different from a data packet, which can originate from another user (substantively the same as "by sending the post-speech packets to at least one terminal connected to a session" in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to adopt the bandwidth throttle of Cromer in the real time data network of Forssell since this would allow the network to have low-power maintenance of inactive connections and the ping packets can be used

by the network of Forssell to send updates to the mobile device to inform the mobile device if the downlink TBF release indication of the last RCL data block has become invalid and the channel needs to be persevered before the downlink TBF release procedures are complete.

As for Claims 15 and 16, Forssell shows in paragraph [0006] and in Fig. 1a, page 14, the network of "a cellular radio system" (substantively the same as "cellular network" in the instant invention).

Forssell shows in paragraph [0007], lines 51-55, and Fig. 1b, page 14, the "operational environment comprises one or more subnetwork service areas," which are interconnected by a backbone network and where each "subnetwork comprises a number of packet data service nodes", which provide a packet service for mobile data terminals 151 via several base stations 152" (substantively the same as "A server in a cellular network comprising a receiver configured to receive a last speech sample packet in an uplink direction" in the instant invention).

Forssell teaches in paragraph [0042], lines 40-41, that "the network is informed at the end of an active period, on whether a passive period follows the active period", and, in paragraph [0044], lines 55-56, "on a downlink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels", showing that a passive period can occur after an active period on an uplink channel and on a downlink channel, and a mobile station of the downlink channel can start transmitting on the channel (substantively the same as "configured to maintain a dedicated channel

between a sending terminal and a receiving terminal for such a time duration that a new dedicated channel can be established utilizing said earlier dedicated channel" in the instant invention).

Forssell does not teach "by sending post-speech packets". However, in the same field of endeavor, Cromer teaches in paragraph [0010], of a "client device" connected "on a wireless local area network (WLAN)", wherein the client device can receive a type of incoming packet called a ""ping" packet for maintaining a connection between the client device and the WLAN", where a "ping" packet originates from the WLAN, different from a data packet, which can originate from another user (substantively the same as "by sending post-speech packets" in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to adopt the bandwidth throttle of Cromer in the real time data network of Forssell since this would allow the network to have low-power maintenance of inactive connections and the ping packets can be used by the network of Forssell to send updates to the mobile device to inform the mobile device if the downlink TBF release indication of the last RCL data block has become invalid and the channel needs to be persevered before the downlink TBF release procedures are complete.

As for Claim 19, Forssell teaches in paragraph [0062], lines 28-30, and FIG. 5, page 16, "When the CV' value is set to "0" the network interprets it so that the first mobile station has no more RLC data blocks to be transmitted at the time and the network may therefore give the next N uplink transmit permissions to some other mobile

station/stations", and, in lines 34-35, "If the mobile station does not have data to be transmitted, to the network at the time, the mobile station may omit the uplink transmit permission or it may transmit a Packet Dummy Control Block or a signalling message" (substantively the same as "an element for sending post-speech packets is a terminal ending its transmission" in the instant invention).

As for Claim 22, the references as applied to Claim 2 teach all the limitations of the instant invention except a data storage medium encoded with software readable by a data processing device for performing actions. Forssell further teaches in paragraph [0086], lines 40-42,47-49, "the processing of information in a telecommunication device takes place in an arrangement of processing capacity in the form of microprocessor(s) and memory in the form of memory circuits. Such arrangements are known as such from the technology of mobile stations and fixed network elements", and "On the network side, the features according to the invention can be implemented e.g. in the Packet Control Unit PCU", where "The packet control unit may be located e.g. in the ... Serving GPRS Support Node SGSN" (substantively the same as "a data storage medium encoded with software readable by a data processing device for performing actions" in the instant invention).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Cromer, and further in view of Upp et al. (Pub. No.: US 2004/0002351 A1), hereafter referred to as Upp.

As for Claim 3, Forssell teaches in paragraph [0034], pages 53-54, that the "network sets the FBI field to '1' when it has no more RLC data blocks to send to the mobile station" (substantively the same as "receiving terminal...receiving the last speech sample packet" in the instant invention). Forssell does not teach that the receiving terminal signals the user. However, in the same field of endeavor, Upp teaches in paragraph [0003], "mobile communication device, which then alerts the user that the channel is open and the user may commence speaking" (substantively the same as "receiving terminal signals the user of the terminal" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the method and system for patching dispatch calling parties together and alerting users of Upp with the real time data network of Forssell since it will allow the network to efficiently form and connect talk groups for subscribers.

Claims 4, 5, 10, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Cromer, and further in view of Lechleider (Patent Number: 6,058,109) and Rinchiuso et al. (Pub. No.: US 2004/0196861 A1), the last two references are hereafter referred to as Lechleider and Rinchiuso, respectively.

As for Claim 4, the references as applied to Claim 2 teach all the limitations except for number of post-speech packets to send and intervals in which to send post-speech packets. However, in the same field of endeavor, Lechleider teaches in lines 34-36, column 6, of a system that "transmits at a rate of 2 packets per second" (substantively the same as "post-speech packets are sent...at intervals of 500 ms" in

the instant invention). Lechleider teaches in lines 35-36, column 6, where a "uniform transmitter packet buffer 250 is 10 packets long", and Lechleider also teaches in lines 48-49, column 6, where a "packet buffer 330 initially waits until 10 packets have been stored before it initiates transmission", providing a situation where only 10 packets may be transmitted (substantively the same as "packets are sent...10 times" in the instant invention"). As indicated in line 28, column 6, these are illustrative examples, and Lechleider does not exclude that the buffers' operation could involve less than 10 packets (substantively the same as "packets are sent downlink 5 to 10 times" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the system of data transmission during link termination delays of Lechleider into the real time data network of Forssell since it would aid in maximizing the total data transmitted during the active period of a channel.

In the same field of endeavor, Rinchiuso teaches in paragraph [0031], "the delay period (X) is varied based on the data transmission rate. More particularly, as the data rate increases, the delay will increase proportionally. In the preferred embodiment of the present invention a delay of 200 msec is used for average data rates of 19 KBPS. The delay period is increased linearly to 500 msec for data rates of 100 KBPS. Varying the delay period in proportion to the data transmission rate" (substantively the same as "at intervals of 500 ms at most" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the channel dropping delay based on data rate system of Rinchiuso into the real time data network of Forssell since it "can

cut down on the bouncing effect, while minimizing the time period a remote unit needlessly holds" a channel (see paragraph [0031] of Rinchiuso).

As for Claim 5, Forssell teaches in paragraph [0043], lines 49-51, "The network may use a timer function for determining whether a passive period follows the active period or if the connection can be released." "...when a predetermined time of inactive data transfer has passed, the TBF is released" (substantively the same as "after the last post-speech packet the downlink used is released after a delay specific to the cellular network" in the instant invention).

As for Claim 10, the references as applied to Claim 9 teach all the limitations except for number of post-speech packets to send and intervals in which to send post-speech packets. However, in the same field of endeavor, Lechleider teaches in lines 34-36, column 6, of a system that "transmits at a rate of 2 packets per second" (substantively the same as "post-speech packets are sent...at intervals of 500 ms" in the instant invention). Lechleider teaches in lines 35-36, column 6, where a "uniform transmitter packet buffer 250 is 10 packets long", and Lechleider also teaches in lines 48-49, column 6, where a "packet buffer 330 initially waits until 10 packets have been stored before it initiates transmission", providing a situation where only 10 packets may be transmitted (substantively the same as "packets are sent...10 times" in the instant invention"). As indicated in line 28, column 6, these are illustrative examples, and Lechleider does not exclude that the buffers' operation could involve less than 10

packets (substantively the same as "packets are sent downlink 5 to 10 times" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the system of data transmission during link termination delays of Lechleider into the real time data network of Forssell since it would aid in maximizing the total data transmitted during the active period of a channel.

In the same field of endeavor, Rinchiuso teaches in paragraph [0031], "the delay period (X) is varied based on the data transmission rate. More particularly, as the data rate increases, the delay will increase proportionally. In the preferred embodiment of the present invention a delay of 200 msec is used for average data rates of 19 KBPS. The delay period is increased linearly to 500 msec for data rates of 100 KBPS. Varying the delay period in proportion to the data transmission rate" (substantively the same as "at intervals of 500 ms at most" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the channel dropping delay based on data rate system of Rinchiuso into the real time data network of Forssell since it "can cut down on the bouncing effect, while minimizing the time period a remote unit needlessly holds" a channel (see paragraph [0031] of Rinchiuso).

As for Claim 20, the references as applied to Claim 16 teach all the limitations except for number of post-speech packets to send and intervals in which to send post-speech packets. However, in the same field of endeavor, Lechleider teaches in lines 34-36, column 6, of a system that "transmits at a rate of 2 packets per second" (substantively the same as "post-speech packets are sent...at intervals of 500 ms" in

the instant invention). Lechleider teaches in lines 35-36, column 6, where a "uniform transmitter packet buffer 250 is 10 packets long", and Lechleider also teaches in lines 48-49, column 6, where a "packet buffer 330 initially waits until 10 packets have been stored before it initiates transmission", providing a situation where only 10 packets may be transmitted (substantively the same as "packets are sent...10 times" in the instant invention"). As indicated in line 28, column 6, these are illustrative examples, and Lechleider does not exclude that the buffers' operation could involve less than 10 packets (substantively the same as "packets are sent downlink 5 to 10 times" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the system of data transmission during link termination delays of Lechleider into the real time data network of Forssell since it would aid in maximizing the total data transmitted during the active period of a channel.

In the same field of endeavor, Rinchiuso teaches in paragraph [0031], "the delay period (X) is varied based on the data transmission rate. More particularly, as the data rate increases, the delay will increase proportionally. In the preferred embodiment of the present invention a delay of 200 msec is used for average data rates of 19 KBPS. The delay period is increased linearly to 500 msec for data rates of 100 KBPS. Varying the delay period in proportion to the data transmission rate" (substantively the same as "at intervals of 500 ms at most" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the channel dropping delay based on data rate system of Rinchiuso into the real time data network of Forssell since

it "can cut down on the bouncing effect, while minimizing the time period a remote unit needlessly holds" a channel (see paragraph [0031] of Rinchiuso).

As for Claim 21, Forssell teaches in paragraph [0043], lines 49-51, "The network may use a timer function for determining whether a passive period follows the active period or if the connection can be released." "...when a predetermined time of inactive data transfer has passed, the TBF is released" (substantively the same as "after a last post-speech packet said earlier dedicated channel is arranged to be released after a delay specific to the network" in the instant invention).

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Cromer, Lechleider, Rinchiuso, and further in view of Schieder et al. (EP 1 139 613 A1), hereafter referred to as Schieder.

As for Claim 6, Forssell does not teach sending post-speech packet to the terminal that used the uplink. However, in the same field of endeavor, Schieder teaches in paragraph [0035], lines 51-54, and FIG. 5a, page 23, after the mobile station side transmits the last data block on an uplink (see item ST5a1, FIG 5a), "the network side will first transmit a so-called packet uplink acknowledgement/negative acknowledgement message in step ST5a2 ... to the subscriber terminal side" (substantively the same as "post-speech packets are also sent to the terminal that used the uplink" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine aspects of the real time data network of Forssell

with the network controller and communication system of Schieder since, in the network of Forssell, "the physical connection of a packet radio service is kept reserved during the passive periods of a session but the same physical resources can still be shared between multiple users" (see abstract of Forssell), and the uplink acknowledgement/negative acknowledgement message of the network of Scheider can be used in the system of Forssell so that a network side can acknowledge to a transmitting mobile station that the last data packet is received in the uplink channel and can also contain information related to channel and network maintenance or information informing the mobile station that the network side has data packets addressed to the mobile station.

As for Claim 11, Forssell does not teach information intended for the user terminal in the post-speech packet. However, Schieder further teaches in paragraph [0052], lines 37-38, "the entry of a new data packet in the network side transmitter queue is not detected", then, in lines 40-42, "the network side can also transmit a signalling message to the subscriber terminal side and in association therewith a transmitter queue information" (substantively the same as "include in post-speech packets information intended for the user of the terminal" in the instant invention). The motivation to combine the invention of Forssell with the invention of Schieder is discussed above with respect to Claim 6.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Cromer and further in view of Kajizaki et al. (Pub. No.: US 2001/0055317 A1), hereafter referred to as Kajizaki.

As for Claim 7, the references as applied to Claims 1 and 2 teach all the limitations except for appending packets together. However, in the same field of endeavor, Kajizaki teaches in the abstract, "When a routing processing unit detects the transmission of a ... number of packets addressed to the same destination ... A combining unit assembles a combined packet" (substantively the same as "sending terminal appends at least one post-speech packet to the last speech packet sent by it" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the packet combining of Kajizaki into the real time data network of Forssell since packets below a certain size can result in unacceptable overhead and inefficient link performance.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Schieder.

As for Claim 12, Forssell shows in paragraph [0084], and FIG. 10, page 20, shows a "block diagram of a mobile station 100", where a control unit (item 103) is substantively the same as the control unit of applicant, a RR-receiver, A/D-converter (item 111) is substantively the same as the receiver RX of applicant, a memory (item 104) is substantively the same as the memory of applicant, a modulator, RF-transmitter (item 123) is substantively the same as the transmitter TX of applicant, and a keyboard

(item 131) and a display (item 132) are substantively the same as the user interface UI of applicant (substantively the same as "cellular terminal, comprising a control unit configures to recognize and/or transmit post-speech packets" in the instant invention).

Forssell does not teach a terminal recognizing post-speech packets. However, in the same field of endeavor, Schieder shows in paragraph [0035], lines 51-56, and in FIG. 5a, page 23, "the network side will first transmit a...message in step ST5a2", where "The message in step ST5a2 is to indicate to the subscriber terminal side", implicitly teaching that the subscriber terminal side, after sending data packets, can understand received non-data packets sent from the network side (substantively the same as "recognize and/or transmit post-speech packets" in the instant invention). The motivation to combine the invention of Forssell with the invention of Schieder is discussed above with respect to Claim 6.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Schieder, and further in view of Upp.

As for Claim 13, Forssell teaches in paragraph [0034], pages 53-54, that the "network sets the FBI field to '1' when it has no more RLC data blocks to send to the mobile station" (substantively the same as "after receiving a last speech sample packet" in the instant invention). Forssell does not teach that the receiving terminal signals the user. However, in the same field of endeavor, Upp teaches in paragraph [0003], "mobile communication device, which then alerts the user that the channel is open and the user may commence speaking" (substantively the same as "a control unit further

configures to perform signaling" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the method and system for patching dispatch calling parties together and alerting users of Upp with the real time data network of Forssell since it will allow the network to efficiently form and connect talk groups for subscribers.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Schieder, and further in view of Kajizaki.

As for Claim 14, the references as applied to Claim 12 teach all the limitations except for appending packets together. However, in the same field of endeavor, Kajizaki teaches in the abstract, "When a routing processing unit detects the transmission of a ... number of packets addressed to the same destination ... A combining unit assembles a combined packet" (substantively the same as "where the received post-speech packets are appended to speech sample packets" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the packet combining of Kajizaki into the real time data network of Forssell since packets below a certain size can result in unacceptable overhead and inefficient link performance.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell in view of Cromer, and further in view of Schieder.

As for Claim 17, Forssell does not teach that non-speech packets are sent from a server operating in the network. However, Schieder further shows in paragraph [0035], lines 51-54, and FIG. 5a, page 23, item ST5a2, that the network side will transmit a non-data message to the subscriber terminal after the subscriber terminal has finished sending data packets. Schieder also shows in paragraph [0087], lines 22-26, and FIG. 10, page 29, item ST102, that the network side NS will transmit a non-data packet after the network side NS has finished sending data packets. In both cases, it is not specified which network side (NS) element of FIG. 1, page 18, sends the non-data message and packet. As a result, Schieder implicitly teaches that any one of the network side (NS) element could be the origination of the non-data message or packet. Schieder teaches in paragraph [0006], lines 50-55, and FIG. 1, that a network side (NS) element is a SGSN, where a "node SGSN (SGSN: Serving GPRS Support Node) is provided which is interfaced via interfaces Gb, Gs, Gr with the base station controller BSC, the mobile switching centre MSC and the home location register HLR. Via the SGSN node an IP backbone network can be accessible in the conventional mobile communication network." (Substantively the same as "an element for sending post-speech packets is a server operating in the network" in the instant invention). The motivation to combine the invention of Forssell with the invention of Schieder is discussed above with respect to Claim 6.

As for Claim 18, the references as applied to Claim 17 teach all the limitations of the instant invention except router server. However, Schieder further shows in FIG. 2,

page 19, that the SGSN (see also FIG. 1, page 18, item SGSN) operates with the Layer 3, IP-based protocols SNDCP and GTP, teaching that the SGSN provides routing functions (substantively the same as "the server sending post-speech packets is a router server" in the instant invention). The motivation to combine the invention of Forssell with the invention of Schieder is discussed above with respect Claim 6.

Response to Arguments

I. Arguments for rejections made under ***35 USC § 101.***

Applicant's arguments, see pages 6-7, filed 8/27/2007, with respect to Claim 22 have been fully considered and are persuasive. The rejection under 35 U.S.C. 101 of Claim 22 has been withdrawn.

II. Arguments for Claim Rejections made under ***35 USC § 112.***

Applicant's arguments, see page 7, filed 8/27/2007, with respect to Claims 12, 15 and 22 have been fully considered and are persuasive. The rejections under 35 U.S.C. 112 of Claims 12, 15 and 22 have been withdrawn.

III. Arguments for rejections made under ***35 USC § 102.***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Please refer to the rejection of Claim 1 above.

Although Forssell does not teach the elements introduced by applicant's amendment, the above rejection of Claim 1 discusses that Cromer does teach these

elements and the motivation to combine the invention of Forssell and the invention of Cromer is discussed above with respect to Claim 1.

Applicant also argues that Claims 1 an 8 are not obvious over Forssell because Forssell does not appear to be interested in solving a problem of how a receiving party (a listening party) could get resources if it needs to change its role to a transmitting party. Examiner respectfully disagrees, since, although Forssell does not explicitly state an interest in solving this problem, this problem is solved in the operation of his invention, where, as discussed above in the rejection of Claim 1, Forssell teaches in paragraph [0042], lines 40-41, that "the network is informed at the end of an active period, on whether a passive period follows the active period", showing that a passive period can occur after an active period on an uplink channel and on a downlink channel, and, in paragraph [0044], lines 55-56, "on a downlink channel, after one mobile station starts to transmit, the other mobile stations may be reallocated to other channels", a mobile station of the downlink channel can have an opportunity to start transmitting on the channel.

Applicant also argues that Claims 1 an 8 are not obvious over Forssell because Forssell teaches a TBF is always released if there are no new packets in the transmitter queue. Examiner respectfully disagrees, as Forssell is stating that an uplink TBF is always released if there are no new packets in the transmitter queue. Forssell teaches in paragraph [0070], lines 13-16, and in Figure 6, page 17, "the network checks the value of the TR parameter from the received RLC block. If the parameter TR=1, the

uplink TBF is released, step 604. Next, **the release of the downlink TBF depends on whether it is requested**, steps 606 and 608" (emphasis added by examiner).

Applicant also argues that a person skilled in the art would not be motivated to modify Forssell to suggest or disclose the claims and to modify Forssell such that it would send post-speech packets for a time that a new uplink can be established would clearly conflict with or eliminate the need for the CV, TR, and/or FBI parameters of the MAC header received from the mobile device. Examiner respectfully disagrees, as post-speech packets can be used by the mobile device of Forssell to send updates to the network to inform the network if the channel reservation of the last RCL data block has become invalid because the user decides not to continue communications and the channel is no longer needed as originally anticipated, or if the TBF release indication of the last RCL data block has become invalid because the user decides to continue communications and the channel needs to be persevered before the tearing down process is complete, and this would not conflict with or eliminate the need for the CV, TR, and/or FBI parameters of the MAC header received from the mobile device, and could actually be used in the post-speech packets since it would not require the development of a different header format for use in the post-speech packets.

IV. Arguments for rejections made under ***35 USC § 103.***

Applicant's arguments filed 8/27/2007 have been fully considered but they are not persuasive. Applicant argues that Claim 2 is not obvious over Forssell in view of Cromer because a "ping" in Cromer requires a response or echo reply and does not

suggest a post-speech packet sent for a duration that a new uplink can be established. Examiner respectfully disagrees, as Forssell already teaches a time that a new uplink can be established, as discussed above in the rejection of Claim 1, and Cromer only needs to teach a post-speech packet that has the purpose of maintaining a connection, as discussed above in the rejection of Claim 1, and the motivation to combine the invention of Forssell and the invention of Cromer is discussed and clarified above with respect to Claim 1.

Applicant also argues that the combination of the invention of Forssell and the invention of Cromer is not feasible and the inventions are incompatible. Examiner respectfully disagrees, as the motivation to combine is discussed and clarified above with respect to Claim 1.

Applicant also argues that Claims 6, 12, and 17 are not obvious over the references cited since Scheider relates to confirming with the transmitting subscriber unit that no data packets are remaining in the subscriber terminal transmitter queue before releasing the physical connection of the terminal, and that Schieder appears to monitor packet arrival time so as to determine the state of the transmitter queue and determine whether to start the TBF release procedure, and that, therefore, Schieder is not concerned with "keeping up the dedicated channel by sending post-speech packets for a time of such duration that a new uplink can be established, utilizing the at least one downlink" as claim 1 recites in part. Examiner respectfully disagrees, as Schieder need not teach these limitations, as Forssell already teaches a time that a new uplink can be established, utilizing a downlink, as discussed above in the rejection of Claim 1, and

Cromer already teaches keeping up the dedicated channel by sending post-speech, as discussed above in the rejection of Claim 1, and the motivation to combine the invention of Forssell and the invention of Cromer is discussed and clarified above with respect to Claim 1.

Applicant also argues that independent claims 8, 12, 15, and 22 distinguish over Forssell alone or in combination with the other cited references for the same reasons detailed above with respect to claim 1, and all other claims depend from one of those independent claims and so all claims are seen to be allowable over the cited art. Examiner respectfully disagrees, since Forssell in view of Cromer does teach the limitations of the invention and the Combination of the invention of Forssel and the invention of Cromer is proper, as discussed and clarified above with respect to Claim 1.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Smith whose telephone number is 571-270-1826. The examiner can normally be reached on Monday through Friday, 7:30 AM to 5:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua Smith
10/22/2007

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